

Physics Department Management Review

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Physics Department Management Review

This presentation is part of the periodic senior management review of ESSH performance related to the EMS and OHSAS management systems in the Physics Department.

The purpose is to assess management system effectiveness and identify opportunities for improvement.

Agenda

- Scope and overview of the management systems
- Hazard and environmental aspects identification
- Review of related assessments
- Financial investments and stakeholder concerns
- FY09 performance versus goals
- Proposed FY10 goals
- Management feedback

EMS and OHSAS Scope

- NPP Work (Office & Experiments) in Buildings 510, 515
- ATF Operations & Experiments in Building 820
- BES in Building 510
 - BES now part of CMPMSD (as of FY06)
 - Review of experiments in 510 CMPMSD responsibility
 - PO maintains reference to ESRs in EMS
 - Use 510 90-Day Area – keep “trail” of process → waste

Operating Mechanisms

- Hazards, Environmental Aspects & Controls identified & reviewed via ESRs & work planning
 - Part of ISM – ESRs use that “language” (Physics initiative)
- ECR reviews all ESRs for Environmental component
- IH Rep reviews all ESRs for concerns/monitoring
- All ESRs have Pollution Prevention plans
- ESRs provide Risk Assessment for each hazard
- Information distribution
 - Web pages
 - <http://www.phy.bnl.gov/~safety/EMS>; ...OHSAS; ...ESRs
 - New employee handout
 - Topic at weekly Physics Department management meeting
 - All-hands meetings
 - ESSH Committee Meetings
 - Group Safety Coordinator (GSC – Worker Committee) meetings
 - Group leader meetings

Hazards & Environmental Aspects

Hazards:

- Hazardous or Toxic Materials
- Electrical Energy
- Flammable Gases and Liquids
- Flammable or Combustible Materials
- Cryogenic materials/devices
- Oxygen deficiency potential
- Ionizing Radiation
- Non-Ionizing Radiation
- Radioactive Materials
- Operating Vehicles
- Housekeeping Hazards
- Working Environment Hazards
- Nanomaterials (CMP)

SEAs:

- Regulated Industrial Waste Generation
- Hazardous Waste Generation
- Radioactive Waste Generation (sealed sources)
- Storage/Use of Chemicals & Radioactive Materials
- Liquid Discharges

External Assessments

- Accelerator Safety (by DOE) – ongoing during FY09
 - ATF SAD & ASE
- DOE BHSO Assessment of BSA Required Reading Program – 4/09
- EMS-OSH Surveillance Audit – 6/09
 - Noteworthy practice – online ESRs; incorporating JRA into ESR
 - Noteworthy practice – Improvements evident in Emergency Management
- Compressed Gas Training Effectiveness (by DOE/BHSO) 6/09
- Nanomaterials ESH (by DOE/BHSO for CMPMSD Labs) 6/09
- Extent of Condition Configuration Management – 7/09
- Noise/Hearing Conservation (by DOE/BHSO) 8/09
- DOE Chicago Cyber Security Audit 9/09
- Electrical Safety (by DOE/BHSO) 11/08

BNL Internal Assessments

- Nessus Daily scans for cyber security high vulnerability
- Nessus Full Scans – Quarterly
- SHSD Review of tier I data – 10/08
- Emergency Management Review of Shelter in Place for a tornado – 11/08
- Radioactive Source Accountability – 11/08
- Beryllium Use Forms – 1/09
- EMS-OSH Internal Audit – 2/09
- EIA&O Interview: Quality of Training Review: Training & Qualifications Steering Committee Function – 2/09
- ATF Fire Investigation Audits 2/09 – 9/09
 - ATF Procedures
 - Conduct of Operations
 - Implementation of Recommendations from 1999 NSLS Modulator Fire
- Compressed Gas Assessment – 6/09
- Laser Audit – 7/09

BNL Internal Assessments

- SH Multi-topic Environmental Assessment – 5/09
 - Beryllium
 - Non-Ionizing Radiation
 - Electrical Safety
 - Lifting Safety
 - Underage Workers
 - Radiation Generating Devices
 - Industrial, Hazardous, Radioactive, and Other Wastes
 - Noteworthy practice – Posting to inform waste generators of rules for use of area
- Field Assessment of Training Program Effectiveness
 - Organization job-specific electrical safety training – 7/09
 - Review of Facility-Specific Training - Required Self-Assessment 7/09
- Well Pump House Explosion Extent of Cause (EOC) Review 7/09
 - Building Manager Program
 - Configuration Management
 - Flammable Gas
 - Integrated Assessment/Lessons Learned improvements

Physics Assessments

- Tier 1 Inspections - Quarterly
- Management Work Observations – Quarterly
- Quarterly Reviews of ATF Area Dose Rates
- Required Annual Reviews
 - Individual Dose Rate including cross-departmental workers
 - Annual Policy & Procedure Reviews
 - Annual Hazard Placard Reviews
 - Annual LO/TO Review
- Various Ergonomic Evaluations
- Radioactive Source Review for reduction in unneeded sources – 1/09
- Physics Department FY08 Self Evaluation – 2/09
- Chemical Inventory Reconciliation – 3/09
- Hood flow audit 5/09
- Hood Survey for Perchlorates – 6/09
 - In preparation for the renovation

Physics Assessments

- Noise Surveys Buildings 510 & 820 – 10/09
- Emergency Management – 11/08
- Surface Surveys for Heavy Metals – 11/08, 8/09
 - Identify contamination of areas being vacated
 - Improve work practices, in collaboration with CMP
 - Clean up legacy areas, in preparation for the renovation

Financial Investments & Stakeholder Concerns

- Funded through Department Operating Budget
 - ~2 FTE for entire ESSH program
 - ECR – shared with CAD
 - SHSD Rep. – shared with other Departments (20%)
- No External Stakeholder Concerns Communicated or Identified
- Staff Involved with Teacher and Student Mentoring Programs

Physics Performance FY2009

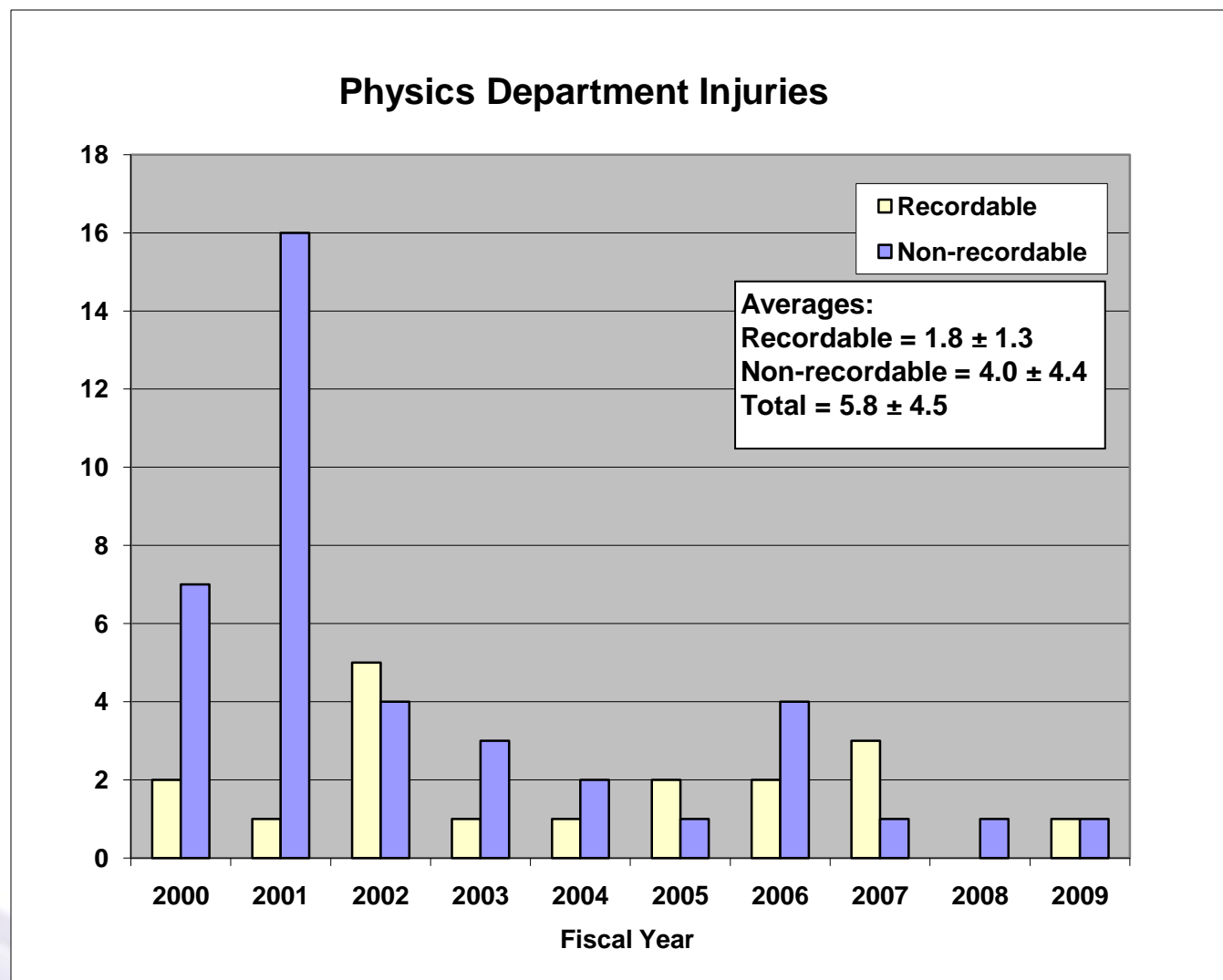
■ EMS and OHSAS Targets

- Reduce excess chemicals and materials stored in the Department to reduce risk of personnel exposure
 - Evaluate storage and usage of chemicals in 2 labs or work areas
 - Dispose of unneeded chemicals or materials in 2 labs or storage areas (did one)
- Reduce energy and paper consumption
 - Require all new ESRs to be submitted using the on-line form: 14 of 31 ESRs are now on-line
 - Replacing windows in Auditorium Lounge and Atrium with double-paned energy efficient glass
- Improve chemical storage in flammable cabinets
 - Review storage in all flammable cabinets in Department (ongoing)
 - Update CMS inventory for all flammable cabinets (ongoing)
- Improve the personnel exposure monitoring program
 - Invite Industrial Hygiene (IH) Representative on 4 Tier 1 inspections. During inspections, identify processes or areas for potential monitoring
 - With IH help, perform personnel monitoring of 2 processes or areas
 - Survey of all hoods in 3-floor wing for perchlorates
 - Noise survey for computer room and new shop
 - Heavy metal surface surveys

Physics Performance FY2009

- Other Activities or Issues
 - Returned “truck load” of electronic modules to HEEP
 - Returned to HEEP inventory for other users
 - Possible repair versus disposal
 - Resulted from Work Observation
 - Raised lab-wide issue of Piranha outgassing
 - Waste container with treated contents had residual pressure
 - Pressure relief caps now used
 - Raised lab-wide issue of ventilation shutdown to ODH
 - Insufficient ventilation to ensure safety
 - After hours work in ODH areas restricted
 - Purchased AED for installation at ATF

Injury Statistics



Proposed FY 2010 Targets

- Reduce excess chemicals and materials stored in the Department. ^{T1}
 - Evaluate storage and usage of chemicals in 2 labs or work areas.
 - Dispose of unneeded chemicals or materials in 2 labs or storage areas.
- Reduce Energy and Paper Consumption.
 - Require all new ESRs to be submitted using the on-line form.
 - Transfer all existing ESRs to the lab-wide electronic system.
- Improve RCRA compliance in satellite accumulation areas.
 - Conduct inspections of satellite accumulation areas (in addition to Tier 1 inspections). Do 9 inspections in 2010.
- Improve communications and awareness to prevent slips, trips and falls (e.g., weather, construction, and vehicle related).
 - Send email messages to all Department members when conditions warrant, at least twice during the year.

^{T1} – In response to Tier 1 findings

Management Feedback

- Are the Systems Effective and Adequate in terms of:
 - Policy commitments?
 - Achieving objectives & performance measures?
 - Identifying SEA, impacts & Risks?
 - Resource allocation, information systems & organizational issues?
- Are Objectives & Targets Suitable in terms of:
 - Environmental impacts & injury/illnesses?
 - Meeting regulatory requirements?
 - Should additional objectives/targets be established?
- Recommendations for Improvements?